

# **FuelCell Energy, Inc. (FCEL) Q2 2024 Earnings Call Transcript**

Seeking Alpha - Earnings Call Transcripts

June 10, 2024 Monday

Copyright 2024 Seeking Alpha Provided by Syndigate Media Inc. All Rights Reserved

**Length:** 7498 words

**Byline:** SA Transcripts

**Body**

FuelCell Energy, Inc. (FCEL)

Q2 2024 Earnings Conference Call

June 10, 2024 10:00 AM ET

Company Participants

Tom Gelston - Senior Executive Vice President, Finance & Investor Relations

Jason Few - President & Chief Executive Officer

Mike Bishop - Executive Vice President, Chief Financial Officer & Treasurer

Mark Feasel - Executive Vice President & Chief Commercial Officer

Conference Call Participants

George Gianarikas - Canaccord Genuity

Saumya Jain - UBS

Ryan Pfingst - B Riley

Noel Parks - Touhy Brothers

Jeffrey Campbell - Seaport Research Partners

Presentation

Operator

Good morning. My name is Audra, and I will be your conference operator today. At this time I would like to welcome everyone to the FuelCell Energy Second Quarter of Fiscal 2024 Financial Results Conference Call. Today's conference is being recorded. All lines have been placed on mute to prevent any background noise. After the speaker's remarks, there will be a question-and-answer session. [Operator Instructions]

At this time, I would like to turn the conference over to Tom Gelston, Senior Vice President of Finance and Investor Relations. Please go ahead.

Tom Gelston

Thank you, and good morning everyone, and thank you for joining us on the call today. As a reminder, this call is being recorded. This morning, FuelCell Energy released our financial results for the second quarter of 2024, and our earnings press release and our quarterly report on Form 10-Q are available in the Investors section of our website at www.fuelcellenergy.com .

Consistent with our practice, in addition to this call and our earnings press release, we have posted a slide presentation on our website. This webcast is being recorded and will be available for replay on our website approximately two hours after we conclude the call.

Before we begin, please note that some of the information that you will hear or be provided with today, will consist of forward-looking statements with the meaning of the Securities Exchange Act of 1934. Such statements express our expectations, beliefs, and intentions regarding the future and include, without limitation, statements with respect to our anticipated financial results, our plans and expectations regarding the continuing development, commercialization, and financing of our fuel cell technologies, and our business plans and strategies. Our actual future results could differ materially from those described in or implied by such forward-looking statements because of number of risk factors and uncertainties. More information regarding such risks and uncertainties is available in the Safe Harbor Statement in the slide presentation and in our filings with the Securities and Exchange Commission, particularly the risk factor section of our most recently filed annual report on Form 10-K and any subsequently filed quarterly reports on Form 10-Q.

During the course of this call, we will be discussing certain non-GAAP financial measures. And we refer you to our website and to our earnings press release and the appendix of the slide presentation for the reconciliation of those measures to GAAP financial measures. Our earnings press release and a copy of today's webcast presentation are available on our website under Investors.

For our call today, I am joined by Jason Few, FuelCell Energy's President and Chief Executive Officer; and Mike Bishop, FuelCell Energy's Executive Vice President, Chief Financial Officer and Treasurer. Following our prepared remarks, we will be available to take your questions and be joined by other members of the leadership team.

I'll now like to hand the call over to Jason for opening remarks. Jason?

Jason Few

Thank you, Tom, and good morning, everyone. Thank you for joining us on our call today. I'm very pleased with our results for the second quarter as we continue to execute on our Powerhouse Business Strategy. Our revenue climbed sequentially compared to our first quarter, but as expected, decreased compared to the prior year period due to the fact that there were no module exchanges this quarter, while there were eight module exchanges in the prior year period. Our on-balance sheet 62.8 megawatt generation portfolio achieved 67% revenue growth year-over-year, which included a full quarter of revenue from three projects that began operation in the first quarter.

During and subsequent to the quarter end, we had some significant commercial wins. And we've also announced an update and extension of our joint development agreement with ExxonMobil's low-carbon solution business. Additionally, we've made progress on cost management and continued our disciplined approach to capital allocation, enabling us to continue our focus on pursuing growth, while managing our expenses related to scale, R&D, and CapEx.

A number of important data points are included on Slide 3, but we think our overall success is most evident through our technological solutions for and collaboration with some of the world's largest global companies, including our work with Exxon Mobil, Toyota, Pfizer, Canadian Nuclear Laboratories or CNL and IBM to name a few. All of us at FuelCell Energy are very proud to be global leaders in electrochemical technology, all in support of our purpose to enable a world empowered by clean energy. We're working to achieve this purpose by deploying our proprietary fuel cell technologies platforms for energy delivery and emissions management around the world to accomplish two fundamental technological applications, decarbonizing power and industry and producing hydrogen.

Subscribe to Seeking Alpha for more content like this

Turning to key messages for the quarter. As you know, we have a long-standing relationship with Exxon Mobil Technology and Engineering Company or [M-Tech] (ph), which provide technical support to Exxon Mobil's low-carbon solutions business. In April, we extended our joint development agreement through the end of 2026, allowing development work on carbon capture technology to continue. We also continue to progress our pilot project at ESSO Nederland B.V.'s manufacturing complex in Rotterdam, Netherlands. I will share more details in a few moments and how we are working with Exxon's low carbon solution business.

Second, we've had a number of commercial wins substantially increasing our backlog during fiscal 2024. The most significant commercial win is in South Korea, a market where we have made expanding our reach with applications like electrolysis, time-to-power, and CO2 recovery and carbon capture a top priority. After the end of the second quarter we announced an agreement to supply Gyeonggi Green Energy or GGE in South Korea with 42 upgraded replacement fuel cell modules. In connection with the sale of these modules, we also entered into a new seven-year service agreement under which FuelCell Energy will support GGE's Hwaseong Baran industry complex which is the world's largest fuel cell power platform installed at a single site. In total, this transaction adds approximately $160 million to our backlog and represents an incredibly important milestone for our company in a market that has embraced fuel cell technology as essential to its energy infrastructure. We look forward to continuing our relationship with GGE, providing them with excellent service, and continuing to expand our business in South Korea.

During the quarter, we also announced a deal for our carbonate fuel cell technology, which will be used in a biogeneration project developed by Ameresco for the Sacramento Area Sewer District to convert on-site biofuels into clean electricity. The project will be powered by one of our 2.8 megawatt carbonate fuel cell platforms, which produces carbon neutral electricity and usable heat from biogas and has the potential for future production of renewable green hydrogen similar to our Port of Long Beach Toyota installation. We also entered into an agreement to provide comprehensive maintenance services for the fuel cell system which will ensure that Sacramento Sewer can focus on its mission of protecting public health and the environment, while delivering renewable power from the cleanest technology available.

Fourth, we are taking proactive steps to maintain the strength of our balance sheet and as we grow we will do so in a cost-effective way following a disciplined approach to managing capital investment by establishing investment triggers linked to key milestones. We have taken concrete steps this quarter to manage costs from managing the pace of our solid oxide expansion, to changes in the structure of our engineering team, to managing R&D and CapEx with the goal of positioning ourselves for long-term financial success. We are making critical investments to position FuelCell Energy for future growth, while taking a highly disciplined approach to maintaining cash and liquidity.

Finally, we continue to evaluate potential options to benefit from global energy transition policies. In the US, these include the legacy investment tax credit program, as well as incentives under 45Q for carbon capture, 48C for the development and construction of clean energy manufacturing, and the potential benefits from the new hydrogen production tax credit as we await final guidance from the IRS and U.S. Treasury related to 45V. Add to this the numerous supportive policies around the world, and we believe that fuel cell energy is positioned well to take advantage of available opportunities.

Next, turning to the extension of the JDA and our work with Exxon's low carbon business on Slide 6. The extension of the JDA through the end of 2026 represents a significant milestone for our company. In order to reach this stage, the technology met several key technical performance criteria, which is a major accomplishment for the talented scientists and engineers from both of our companies. This success also reinforces our view that there are significant commercial possibilities to extend the value and opportunity for our carbonate technology by delivering what we believe will be superior carbon capture technology at a lower cost. The extension of the JDA is designed to allow FuelCell Energy and Exxon's low carbon business to pursue multiple commercial opportunities.

The carbon capture enhancements to our core technology jointly developed with Exxon to be demonstrated in Rotterdam features an optimized design for large-scale installations. Through this updated agreement, FuelCell Energy has the opportunity to pursue carbon capture opportunities using our current generation of carbonate modules by incorporating carbon capture improvements derived from our joint development work. We can move more quickly to provide access to this superior technology in our existing platform targeting 250 kta or kilotons per annum as an opportunity to demonstrate the technology capabilities earlier, while we complete the work to demonstrate large industrial-scale carbon capture at Esso's refinery in Rotterdam.

We believe the ability to incorporate improvements developed under the JDA and to FuelCell Energy's current generation modules will enhance the capabilities of our power, hydrogen, and carbon recovery solutions and provide the ability to offer more attractive, near-term carbon capture solutions to our customers. Additionally, FuelCell Energy and Exxon Mobil are continuing to progress discussions for a commercial framework aimed at enabling deployment of the carbonate fuel cell technology for carbon capture through Exxon's Low Carbon Solutions business and FuelCell Energy.

Turning to Slide 7. We are excited about the promising potential of this technology to capture CO2 emissions from industrial and commercial exhaust streams with the goal of helping to solve one of the world's biggest environmental challenges. The Esso Rotterdam pilot project is co-funded by the European Union under the emissions trading systems innovation fund and by the Netherlands Enterprise Agency by means of a demonstration energy and climate innovation, DEI plus grant. This manufacturing site will be the first place in the world to pilot this differentiated multi-featured technology that captures CO2 emissions from industrial sources, while simultaneously generating electricity and hydrogen. The ability to deliver these valuable co-products is targeted to improve the economics of carbon capture, lower the barrier to broader adoption of carbon capture in this marketplace and deliver decarbonized electricity and hydrogen.

Next, as you'll see on Slide 8, we have entered into an exciting new relationship with Ameresco to use our carbonate fuel cell technology in a biogeneration project for the Sacramento Area Sewer District. Wastewater treatment is a particularly attractive application for our platforms and California remains an important geography for our company. Some of the inherent benefits in this application are: our carbonate fuel cell platform runs directly on biogas created on site from the wastewater treatment process; our proprietary fuel cell cleanup system removes contaminants to maximize usable on-site biogas; waste heat generated by the fuel cell will be used to support the anaerobic process that creates biogas and the fuel cells chemical reaction is virtually free of NOx, SOx, and particulate matter emissions, improving air quality for the community.

Subscribe to Seeking Alpha for more content like this

In California, Fuel Cell Energy's platforms have received key certification under the California Air and Resource Board Distributed Generation Standards, which allows the local air quality management district to utilize a streamlined air permitting process, accelerating the installation of clean energy projects the company pursues in the state. The Sacramento Sewer Project represents our fourth biogas project in California, with our other plants already installed in Riverside, Tulare, and San Bernardino.

Turning to Slide 9. As we mentioned earlier in the call, subsequent to the end of the quarter, we signed a significant long-term service agreement to support GGE's Hwaseong Baran Industrial Complex. In addition to the $160 million this project adds to our backlog, our engagement with GGE also demonstrates our ability to rollout and service large-scale power projects, a capability we think is unique to FuelCell Energy. Importantly, our carbonate technology is a proprietary and proven design. Today, FuelCell Energy operates eight large-scale platforms ranging from 11.2 megawatts to 58.8 megawatts, and of these eight platforms, seven have been in operations for five years or more.

One rapidly growing need, particularly in the US, is for new data center construction to support investment in AI. Strong demand for additional computing power has been set back by the limitations of the current power grid, which is unable to meet the energy demands of large AI data centers. Current projections for power usage show that this bottleneck is only expected to grow, creating a substantial addressable market for the large-scale baseload power projects that are one of our unique strengths. No other fuel cell provider has implemented, run, and supported large megawatt projects at our same scale, making FuelCell Energy uniquely positioned to meet the immediate and future needs tied to the data center growth. We have demonstrated our large-scale platform capabilities at sites in the US and Asia, providing customers and prospective customers with the operating data to support a FuelCell Energy purchase decision. In addition, we have delivered platforms integrated with absorption chilling, thus fully taking advantage of our ability to deliver steam or thermal energy ideal for cooling data centers.

Data centers require continuous power and our continuous baseload platforms provide the reliability and resiliency data centers need. Finally, we have a proven track record in microgrid applications which are crucial for data centers. We are actively pursuing opportunities in this sector and believe our business is uniquely suited to capitalize on this secular trend.

And now, I would like to turn the call over to our CFO, Mike Bishop.

Mike Bishop

Thank you, Jason, and good morning to everybody on the call today. Let's begin by reviewing the financial highlights for the quarter as shown on Slide 11. For the second quarter of fiscal year 2024, we reported total revenues of $22.4 million compared to revenues of $38.3 million in the prior year quarter. In the second quarter of fiscal year 2024, we reported a net loss of $37.7 million compared to a net loss of $33.9 million in the second quarter of fiscal year 2023.

The resulting net loss per share attributable to common stockholders in the second quarter of fiscal year 2024 was negative $0.07 cents compared to negative $0.09 cents in the second quarter of fiscal year 2023. The net loss per common share benefited from the higher number of weighted average shares outstanding due to share issuances since April 30th 2023.

Adjusted EBITDA totaled negative $26.5 million in the second quarter of fiscal year 2024 compared to adjusted EBITDA of negative $26 million in the second quarter of fiscal year 2023. Please see the discussion of non-GAAP financial measures, including adjusted EBITDA, in the appendix at the end of our earnings release. Finally, we reported a strong total cash and short-term investment position of approximately $313.2 million consisting of cash, cash equivalents, restricted cash, and investments in U.S. Treasuries as of April 30, 2024.

Next, on Slide 12, you will see additional details on our financial performance and backlog. In the graph on the left-hand side of the slide, revenue is broken down by category. Service agreement revenues decreased to $1.4 million for the second quarter of fiscal year 2024 from $26.2 million in the prior year period. The decrease in service agreement revenues was primarily driven by the fact there were no module exchanges during the second quarter of fiscal year 2024. Service agreement revenues recognized during the prior year quarter were primarily driven by module exchanges at the plants owned by Korea Southern Power Company in Korea.

Generation revenues increased 67% to $14.1 million from $8.4 million, primarily driven by revenue from the Toyota and Derby projects, which began operations in the first quarter of fiscal 2024. Advanced technology contract revenues increased to $6.9 million from $3.7 million. Compared to the prior year quarter, advanced technology contract revenues recognized under our JDA with M-Tech were approximately $0.1 million lower and revenue recognized under government contracts and other contracts were approximately $3.3 million higher. Advanced technology contract revenues for the second quarter of fiscal 2024 also include revenues arising from the purchase order previously received from Esso Nederland B.V. or Esso, an affiliate of M-Tech and Exxon Mobile Corporation.

Looking at the right-hand side of the slide, I will walk through the changes in gross loss, profit, and operating expenses. Gross loss for the second quarter of fiscal 2024 totaled $7.1 million compared to a gross loss of $6.1 million in the comparable prior year quarter. The gross loss is in part a result of unfavorable margins for generation, which included expense construction and gas costs related to the Toyota project of $2.6 million and a mark-to-market net loss of $2.3 million related to natural gas purchase contracts in the three months ended April 30th, 2024. The gross loss in the comparable prior year period primarily resulted from lower generation margins due to $4.5 million of expense construction and gas costs related to the Toyota project, partially offset by higher service margins related to module exchanges.

Subscribe to Seeking Alpha for more content like this

Operating expenses for the second quarter of fiscal 2024 increased to $34.3 million from $29.8 million in the second quarter of fiscal 2023. Research and development expenses increased to $16.6 million during the second quarter of fiscal 2024 compared to $14.7 million in the prior year period. The increase in research and development expenses reflects increased spending on labor and materials and our ongoing commercial development efforts, including increased headcount, related to our solid oxide power generation and electrolysis platforms and carbon separation and carbon recovery solutions.

On the bottom right of the slide, you will see the backlog increase to $1.06 billion as of April 30th, 2024, compared to $1.02 billion as of April 30th, 2023. This change was primarily a result of the service agreement with Noel Green Energy Company Limited entered into during fiscal year ended October 31, 2023, increases in advanced technology contract backlog as a result of the purchase order received from Esso during the first quarter of fiscal year 2024, and additional advanced technology contract backlog related to amendment number 5 to the JDA between the company and M-Tech entered into in April 2024, partially offset by revenue recognition under generation, service, and advanced technology agreements since April 30th, 2023.

Subsequent to the end of the quarter, we announced that we have entered into a long-term service agreement with GGE pursuant to which we will provide GGE with 42 1.4 megawatt upgraded replacement carbonate fuel cell modules. The total amount payable by GGE under this new long-term service agreement for the replacement fuel cell modules, balance of plant replacement components, and service is approximately $160 million, which will be paid over time as replacement fuel cell modules are commissioned and the service obligations for such modules commence under the long-term service agreement. This $160 million agreement was added to the company's backlog in our third quarter as of May 28, 2024.

Next, on Slide 13, we have an update on our cash and liquidity. During the quarter, we closed on a project debt financing transaction with Liberty Bank and Connecticut Green Bank for our two projects in Derby, Connecticut, which recently began operations. Net funding to the company totaled approximately $11.5 million after deducting transaction fees and debt service reserves. The term of the senior facility is seven years and the subordinated credit facility is 14 years. The interest rate for the senior debt is fixed at 7.25% and the interest rate for the subordinated debt is fixed at 8%.

During the three months ended April 30th 2024, approximately 6.5 million shares of our common stock were sold under the amended open market sale agreement at an average sale price of $0.98 per share resulting in net proceeds to the company of approximately $5.9 million after deducting sales commissions and fees. As of April 30, 2024, cash and cash equivalents, investments in U.S. Treasuries, and restricted cash and cash equivalents totaled $313.2 million. This includes approximately $158.8 million of unrestricted cash and cash equivalents, $101.3 million of short-term investments in U.S. Treasuries, and $53.1 million of restricted cash and cash equivalents. Subsequent to quarter end, the company raised an additional $31.7 million through the sale of common stock under the company's amended open market sale agreement after deducting commissions and fees.

Turning to Slide 14, on our 2023 fourth quarter earnings call we presented our targeted investment plan for fiscal year 2024. As Jason previously mentioned, we are committed to following a disciplined approach to managing our investments as we grow by establishing triggers linked to key milestones. In keeping with this approach, some of our previously planned spending is now expected to shift into fiscal year 2025. First, we are now expecting to make $45 million to $60 million in capital expenditures for property, plant, and equipment in fiscal year 2024 down from the $60 million to $75 million we originally planned for the fiscal year. These updated capital amounts are in addition to capital expenditures and are commitments made by the company in fiscal year 2023 to upgrade our manufacturing facilities.

These priorities include expansion of solid oxide manufacturing capacity at our Calgary facility to 40 megawatts of solid oxide electrolysis cell production per year, which is now expected to be completed in calendar year 2025. The company is also exploring adding certain solid oxide manufacturing capabilities to its Torrington, Connecticut production facility. We are also investing in our Torrington manufacturing facility for molten carbonate, including adding capabilities for carbon recovery and carbon capture manufacturing and testing. Internally funded research and development expenses for fiscal year 2024 are now projected to be in the range of $60 million to $65 million, reflecting a decrease from our prior estimated expenses for fiscal year 2024. Priorities for R&D are to continue to accelerate the commercialization of our advanced technology solutions for distributed hydrogen, hydrogen-based long-duration energy storage, and hydrogen power generation.

Lastly, we lowered the estimated investment in project assets in our generation portfolio to $10 million to $15 million for fiscal 2024 compared to the previously provided range of $15 million to $25 million as a result of the timing of the Trinity Project, which is now expected to be constructed and commissioned in calendar year 2025.

In summary, the adjustments described on this slide represent a reduction in planned spending of up to $30 million in fiscal year 2024, assuming the high end of the range. We will continue to pursue opportunities to reduce costs across our product platforms and business operations, while executing on our strategic growth initiatives.

I will now turn the call back to Jason.

Jason Few

Thanks, Mike. I hope you have all seen the progress we have made in the second quarter and have greater visibility and clarity into the drivers of our business. When we sell one of our products to a customer who realizes the value in our clean power solutions, we win. When we provide reliable power and services to these customers, we win. When we turn our emerging technologies into new project sales, we win. When we do all of this in a cost-discipline manner, balancing our commitment to service and innovative research with our commitment to generating returns for investors, we win. Our goal this year is to put more wins on the board. This quarter showed many of these examples and we look forward to providing more positive updates in the quarters ahead.

Subscribe to Seeking Alpha for more content like this

I will now turn it over to the operator to begin Q&A.

Question-and-Answer Session

Operator

Thank you. We will now begin the question-and-answer session. [Operator Instructions] We'll go first to George Gianarikas at Canaccord Genuity.

George Gianarikas

Hi. Good morning, everyone, and thank you for taking my questions.

Jason Few

Rich, How are you this morning? Thank you for calling in.

George Gianarikas

Doing great. Yourself?

Jason Few

Doing fantastic. Thank you.

George Gianarikas

So I'd just like to focus on Slide 14 for a second, reducing spending by up to about $30 million. Did I hear correctly that you're expecting some of this project spend to extend into fiscal 2025? And also, you had mentioned in the past that you had this reversible solid oxide platform that you expect to start in 2027. Is that still on track? Thank you.

Mike Bishop

Good morning, George. This is Mike. I will take the first part of that question. As far as our planned spend in fiscal 2024, yes, on Slide 14, we did summarize the adjustments that we've made this fiscal year, reducing CapEx, reducing company funded R&D expenditures, and reducing project asset spending. Specific to your question around project assets, the range we expect this year is $10 million to $15 million. Previously, we were in the $15 million to $25 million range. That assumed that the Trinity Connecticut project would be completed in fiscal 2024. That project has now been extended into fiscal 2025, which is the reason for lowering that particular estimate.

Jason Few

And George, with respect to reversible solid oxide, it remains on our product roadmap, but as we've outlined in today's call, we're really pacing our spending based on how we see market adoption. We think with our technologies, we're well positioned today to be around a number of different opportunities depending on how the market evolves, whether that's using hydrogen as a long duration energy storage, which we continue to believe is ultimately a more compelling solution than a mineral-based solution, rather the opportunities emerge faster along the lines of carbon recovery or carbon capture, and the opportunity we see just increasing around distributed power generation as interconnection cues continue to extend out on grids, at least certainly domestically. And you see some of that happening in international markets as well.

So we think our technology puts us all close to the proximity of where we see the market opportunities developing and our investments will be really guided by what we see happening from a market adoption standpoint.

George Gianarikas

Thank you. And maybe as a follow-up, you mentioned this new Ameresco partnership and the one particular wastewater treatment facility that you'll be deployed in there. Just any color around pipeline there in the partnership with Ameresco and if there are additional facilities where you could see joint deployment. Thank you and I'll step back in queue.

Jason Few

Yes, so with Ameresco, this is our first project we've done with Ameresco, but it's certainly not our first biogas -- direct biogas project. And we think that this trend will continue to develop as an attractive opportunity for us as a company, we think that as you look across states and cities all over America as an example, and even in Europe, there is a continued push to move away from landfill waste, which essentially means most of that waste is going to end up being part of some anaerobic digesting process, and they're going to create fuel that needs to be utilized.

What gives us a unique advantage is that, we're able to use that fuel directly on site, which also reduces the cost associated with that fuel because we don't need to get that fuel to pipeline quality. We can utilize that fuel and then utilize the thermal energy of our platform to actually accelerate the anaerobic digesting process. So we have an expectation that this project with Ameresco will be a successful one. As an EPC firm, we would anticipate that they would pursue other opportunities, like the one at the Sacramento Sewer District, and we think that the success of this project will give us an opportunity to participate in more of those as we move forward.

George Gianarikas

Thank you.

Operator

We'll move to our next question from Saumya Jain at UBS.

Saumya Jain

Hey, good morning, guys. Could you provide some more detail on the Tri-Gen system and how you see that partnership with Toyota growing?

Jason Few

So, and good morning, and thank you for the question. So our Tri-Gen system is fully operational at the Port of Long Beach in California. And as you know, it provides three valuable streams to Toyota. We provide electricity. We provide hydrogen and water. All three of those are used directly on site. We suspect that as Toyota continues to advance its efforts to distribute hydrogen-based fuel cell electric vehicles, that that will create additional opportunities for that technology. We're excited to see a recent news story that Honda is starting to build fuel cell electric vehicles here in the United States in Columbus, Ohio. So we think that that really begins to throw support for the trend around fuel cell electric vehicle transportation in light duty transportation, in addition to heavy duty transportation, where we think it makes a lot of sense as well, because you don't pay the penalty for excess weight with batteries on a fuel cell electric vehicle on the heavy Class 8 side. So we're working very closely with Toyota. We have a good relationship with Toyota and we suspect that we'll have opportunities to pursue other Tri-Gen projects.

Subscribe to Seeking Alpha for more content like this

Saumya Jain

Thank you.

Operator

We'll go next to Ryan Pfingst with B Riley.

Ryan Pfingst

Jason, you mentioned the data center opportunity. Are you in discussions with potential data center customers today? Just trying to get a sense of how advanced those conversations might be.

Jason Few

Ryan, we are. And I'm actually joined by Mark Feasel, our Chief Commercial Officer. So I'll have him maybe jump in and give you a sense of the kind of conversations that we're having, but we're very engaged in those conversations. And the one thing that I would say, like we mentioned in the prepared remarks, we think that positions us incredibly well, Ryan, for the data center opportunities is that, we have demonstrated our ability to deploy large-scale platforms. I mean, if you look at the GGE platform, that 58.8 megawatts. We have multiple 20 megawatt platforms in Korea as well. We have large platforms running here in the United States and that differentiates us from any other fuel cell provider. And so, as data centers are looking for on-site generation at large scale, we feel like we're well positioned. But I'll have Mark give you a few other insights on our customer conversations.

Mark Feasel

Yes, Jason, thank you. So as you can imagine, in having these conversations with data center customers, they're very interested in a number of different elements that have to do with how they can bring energy in a sustainable, reliable way to this new load. In addition to the well-publicized interconnection cues that are long and the ability for the grid to serve or not, there's other kind of constraints that these customers face as well, such as air quality restrictions in certain areas. And so, as Jason mentioned, with respect to our work in California, our demonstrated ability to be able to operate large generation plants at scale and avoiding some of those criteria mittens that can result in long delayed implementations of energy is a very important advantage. So we are in the midst of technical economic decisions, conversations with many data center companies around the world, and especially focused right here in North America.

Jason Few

And Ryan, maybe I'll just have one other thing. As we think about advantages for us, obviously proven demonstrated large scale. Like I said, we've got platforms that are 50 megawatts, 20 megawatts that have been running for five years or more, so proven demonstrated capability to do large scale. Secondly, when you think about these edge data centers and they need to get data centers closer to where the consumption is actually taking place, air permitting becomes a big issue. Well, we have an advantage in air permitting because we don't combust fuel. So we're not emitting SOx, NOx, and other particulates. Thirdly, when you think about edge data centers, we have another advantage because of noise. We don't have moving parts. So we operate at a very low decibel level. So we're able to deploy our platform in urban areas.

Another big advantage is the fact that we're a high temperature. And that gives us an advantage to actually integrate with absorption chilling, because all of these edge data centers need lots of cooling to operate those data centers. And so, if you think about just those things as just four examples of where we have proven advantage and demonstrated capabilities and then add to that maybe the fifth one is the fact that we have demonstrated success in microgrid applications. So our ability to integrate with the data center and the grid and provide that level of redundancy we think puts us in a really nice position to offer a very compelling solution to data center operators.

Ryan Pfingst

Great. Yes, I really appreciate all that color. Thank you, Mark, as well. Just one more from me. Can you walk through the expected revenue cadence for the GGE agreement?

Mike Bishop

Good morning, Ryan, this is Mike. So, what -- yes, so high level the GGE agreement is $160 million. What that agreement includes is replacement of the 42 fuel cell modules at the GGE site and then service for seven years as well as maintenance around the balance of plant. So the way this will initially rollout is the first six replacement modules will be delivered in our fourth fiscal quarter. So we would expect revenue recognition related to those modules in the fourth quarter. And then from there, the next 30 modules will be shipped and delivered during calendar 2025 and the final six modules will be delivered in the first half of 2026. So revenue recognition will essentially follow those modules being delivered to the customer site.

Ryan Pfingst

Got it. All very helpful. I'll turn it back. Thanks.

Operator

[Operator Instructions] We'll go next to Noel Parks at Touhy Brothers.

Noel Parks

Hi, good morning. I just had a couple. I was interested in the R&D spending, and you revised the expectation for the year. And I just wondered if you could break out a little bit whether those increases are likely to be -- well, I'm sorry, not the increase, I'm sorry. The current spending rate is going to be more in the carbonate product, the solid oxide or carbon recovery? And you can sort of characterize examples of what some of the projects or initiatives are that are ahead.

Mike Bishop

Sure. Noel, this is Mike. I'll take that one. So, yes, in our disclosures around company-funded R&D, we reduced the range from $60 million to $70 million to $60 million to $65 million, we're at about $32 million in the first half of the calendar -- first half of the fiscal year. Excuse me. So essentially remaining flat the rest of the year. The investments that we're making in R&D at that line in our financial statements are really around our solid oxide solutions. So this is solid oxide power gen, as well as hydrogen based long duration energy storage and electrolysis for producing hydrogen.

Around carbon capture that you mentioned, that's a funded project that's coming with our joint development agreement with Exxon, as well as the recent purchase order that we entered into around the Rotterdam project. So that's flowing through advanced technologies, and the company is getting paid for that particular work.

Subscribe to Seeking Alpha for more content like this

Noel Parks

Okay, great. And it was just kind of a housekeeping question. I noticed that the depreciation sequentially was a bit higher this quarter. I wondered if that was just a timing thing related to either onboarding or rolling off of inventory.

Mike Bishop

Yes, so the depreciation did pick up, and that's a result of newer projects coming online. So we previously announced the two Derby projects came online in the first fiscal quarter as did the Toyota project. So you're now starting to see the depreciation from those projects coming through the financial statements.

Noel Parks

Got it. Thanks a lot.

Jason Few

Yep. No problem.

Operator

We'll move next to Jeffrey Campbell at Seaport Research Partners.

Jeffrey Campbell

Good morning. I want to go back to Slide 6 and just see if we can expand a little bit on the fuel cell ability to utilize this technology referring to the carbon capture stuff in small to midscale applications through the agreement term. And I'm not meaning to be pejorative in any way. I'm just wondering, is this sort of a theoretical concept at this point, or do you already have a design for a smaller application? Is there an active marketing effort going on here? Maybe what type of application you think would have the results sooner than later? And also, if something comes through, is that going to be competing for manufacturing capability in some of the other areas that you've noted? Thanks.

Jason Few

Jeffrey, thank you for the question and great question. So the work that we've done over the last few years with Exxon has been around technology optimization focused on carbon capture. In the work that we've done to actually pursue larger scale opportunities, we fundamentally have changed kind of the format of our footprint of the design. And so, today we're kind of a cube-shaped vertical design. In the work that we're doing with Exxon, we're going to be a horizontal design platform. But the cell technology itself that goes into both of those platforms, we have the ability to leverage them in our current design. And we'll certainly leverage it in our go-forward design on applications that are just focused on carbon capture.

So as we do the work to get to the demonstration project in the Netherlands with Exxon at the Esso plant, we have the ability to take that cell design without changing our existing format or footprint and integrate that cell design into our existing platform enhancing its carbon capture capabilities. We have previously demonstrated the ability to capture carbon in our existing design. But one of the things that we wanted to make sure that we did when we put it into a carbon capture application is that, we also maintain the power density. This will give us the ability to do that both in our existing design and in the design strictly focused on carbon capture.

So it is not theoretical, it is something that we are actively engaged in as a company. Our sales team is actively engaged in opportunities with customers around the ability to leverage our existing design for carbon capture. In addition to the work that we're doing against carbon recovery, so what are the kind of applications that you could utilize this technology for? We've talked a lot about the food and beverage application opportunity, where we can capture carbon, let's say, from a boiler at a food processing plant, capture that carbon. We can clean that carbon up and then give it right back to the customer, for example, to use in the processing of those proteins, as an example.

You could take that exact same example and take a customer with an industrial boiler. We can capture that carbon. And if we were doing this somewhere in a market where you've got CO2 pipelines, we could put that CO2 on a pipeline and that CO2 could be sequestered or used in other applications. So these are real opportunities that we're pursuing. If you think about other areas where you now have with the EPA rules around the good neighbor rule and the need for companies to capture carbon, those also open opportunities for us to utilize our existing platform integrating our enhanced cell technology to go after those kind of opportunities.

Jeffrey Campbell

Great. And if I could just follow that up. The follow on is, do you see this, I mean, on paper, the small scale versus the large for Esso looks like parallel paths. Do you feel like from the conversations you're having right now that there are people that are out there that may be willing to commit to a small or mid-scale application before the Exxon facility is up and running in 2026 or is there sort of the sense that everybody is kind of waiting to see how the thing performs at the large scale and then that will be the validation to get some of these smaller scale applications moving. Thanks.

Jason Few

Yes, great question. We anticipate that customers will move forward in advance of the Exxon demonstration project being implemented and fully running its project timeline. So we do not see that as a barrier to pursuing carbon capture opportunities on the smaller scale. And in fact, we think that there's customers on the smaller scale that will likely be able to move maybe faster than some of these very large scale projects where there's a number of other things that you have to work through in terms of the CO2 itself and just the volume and what you're going to do with it. And as you get into carbon capture, you're then talking about Class 2 permits or Class 6 permits to be able to sequester the carbon. And so, we think the smaller scale projects have an opportunity to move faster, get off the starting line a little bit quicker.

Jeffrey Campbell

Great. I appreciate the color. Thank you.

Jason Few

Thank you.

Operator

And that concludes our Q&A session. I will now turn the conference back over to Jason Few for closing remarks.

Subscribe to Seeking Alpha for more content like this

Jason Few

Thank you, Audra. I really appreciate it. And thank you all for joining us today. The results of the second quarter are indicative of our powerhouse business strategy to grow significant market opportunities, scale our existing platform to support growth, and innovate for the future. We remain laser focused on this strategy, which has allowed us to collaborate on developing technologies with some of the largest companies in the world. Thank you again for joining us today on our call. Have a great day.

Operator

This concludes today's conference call. Again, thank you for your participation. You may now disconnect.

**Load-Date:** June 10, 2024

**End of Document**